

Department of Electrical Engineering, Faculty of Engineering & Technology

Program Name: B. Tech.-Electrical Engineering (2016-17)

SCHEME OF TEACHING AND EVALUATION

FIRST SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 105	Ability Enhancement	English	2	1	-	2.5
MAT 102	Science	Engineering Mathematics-I	3	1	-	3.5
PHY 105	Science	Physics for Engineers —I	3	-	-	3.5
CHY 105	Science	Chemistry for Engineers	2	-	-	2
BEE 101	Engineering	Basic Electrical & Electronics	3	1	-	3.5
BCS 101	Engineering	Fundamentals of Computer	3	-	-	3
PHY 106	Science	Physics for Engineers Lab —I	-	-	2	1
CHY 106	Science	Chemistry Lab	-	-	2	1
BEE 102	Engineering	Basic Electrical & Electronics Lab	-	-	2	1
BCS 102	Engineering	Fundamentals of Computer Lab	-	-	2	1
BME 101	Engineering	Workshop Practice	-	-	2	1
BME 102	Engineering	Engineering Graphics	-	-	2	1
ENG 113	Skill Enhancement	Soft Skills & Self Awareness	-	-	2	1
		TOTAL	16	4	14	25

SECOND SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 106	Ability Enhancement	Professional Communication	2	1	-	2.5
MAT 103	Science	Engineering Mathematics-II	3	1	-	3.5
PHY 107	Science	Physics for Engineers —II	3	1	-	3.5
CHY 103	Science	Environmental Science	2		-	2
BME 201	Engineering	Engineering Mechanics	3	1	-	3.5
BCS 201	Engineering	Computer Programming Using C	3	-	-	3
ENG 107	Ability Enhancement	Communication Techniques Lab	-	-	2	1
PHY 108	Science	Physics For Engineers Lab-II	-	-	2	1
CHY 107	Science	Environmental Science Lab	-	-	2	1
BCS 202	Engineering	Computer Programming Using C Lab	-	-	2	1
BME 202	Engineering	Computer-Aided Graphics	-	-	2	1
ENG 114	Skill	Soft Skills & Communication	-	-	2	1
		TOTAL	16	4	12	24

THIRD SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
MAT 105	BS	Advance Engineering Mathematics	3	1	-	4	3.5
BEC 301	OE	Electronic Devices and Circuits	3	-	-	3	3
BEC 303	OE	Digital Electronics	3	-	-	3	3
BEE 301	PC	Circuit Analysis	3	1	-	4	3.5
BCS 302	OC	Object Oriented Programming with C++	3	-	-	3	3
BEE 302	PC	Electrical Machines -I	3	-	-	3	3
BEC 306	OE	Electronics Devices and Circuits Lab	-	-	2	2	1
BEC 307	OE	Digital Electronics Lab	-	-	2	2	1
BCS 305	OE	Object Oriented Programming Lab	-	-	2	2	1
BEE 303	PC	Electrical Machines Lab- I	-	-	2	2	1
ENG 115	BS	Soft Skill & Professional Aptitude	-	-	2	2	1
MGT 201	HSM	Orientation Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

FOURTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 401	PC	Circuit Analysis & Synthesis	3	1	-	4	3.5
BEE 402	PC	Electrical and Electronics Measurement and Instrumentation	3	-	-	3	3
BEC 402	OE	Microprocessor and Interfacing	3	-	-	3	3
MGT 101	OE	Sociology and Elements of Economics	3	-	-	3	3
BEE 403	PC	Generation of Electrical power	3	-	-	3	3
BEE 404	PC	Electrical Machines -II	3	1	-	4	3.5
BEE 405	PC	Circuit Analysis & Synthesis Lab	-	-	2	2	1
BEE 406	PC	Electrical and Electronics Measurement and Instrumentation Lab	-	-	2	2	1
BEC 407	OE	Microprocessor and Interfacing Lab	-	-	2	2	1
BEE 407	PC	Electrical Machines Lab- II	-	-	2	2	1
MGT 110	HSM	General Aptitude	-	-	2	2	1
MGT 202	HSM	Basic Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

FIFTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BCS 401	OE	Data Base Management Systems	3	-	-	3	3
BEE 501	PC	Power Electronics	3	1	-	4	3.5
BEE 502	PC	Control System Engineering	3		-	3	3
BEE 503	PC	Transmission & Distribution of Electrical Power	3	1	-	4	3.5
BEE 504	PC	Smart Grid Technology	3	-	-	3	3
	PE	Program Elective Course-I	3	-	-	3	3
BEE 505	PC	Smart Grid Lab	-	-	2	2	1
BEE 506	PC	Power Electronics Lab	-	-	2	2	1
BCS 404	OE	Data Base Management Systems Lab	-	-	2	2	1
BEE 507	PC	Control Systems Lab	-	-	2	2	1
MGT 203	HSM	Foundation Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	10	30	24

Elective I

BEC 502- Microcontroller & Embedded System

BEE 508- Advance Distribution System

BEC 603- Digital Signal Processing

SIXTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 601	PC	Power System Analysis	3	1	-	4	3.5
BEE 602	PC	Advance Control Theory	3		-	3	3
BEE 603	PC	Advance Power Electronics	3	1	-	4	3.5
BEE 604	PC	Electric Drive & their Control	3		-	3	3
BEE 605	PC	Utilization of Electrical Energy & Electric Traction	3	-	-	3	3
	PE	Program Elective Course-II	3	-	-	3	3
BEE 606	PC	Power System Analysis Lab	-	-	2	2	1
BEE 607	PC	Advance Power Electronics Lab	-	-	2	2	1
BEE 608	PC	Electric Drive & their Control Lab	-	-	2	2	1
BEE 609	PC	Advance Simulation Laboratory	-	-	2	2	1
BEE 610	PC	Campus Recruitment Training -I (Technical)	-	-	2	2	1
MGT 204	HSM	Intermediate Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

Elective II

BEC 504 -Advance Microprocessors

BEE 611- Power System Instrumentation

BEC 608 - Information Theory and Coding

SEVENTH SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
MGT 103	HSM	Project Formulation & Appraisal Techniques	3	-	-	3	3
BEE 701	PC	High Voltage Engineering	3	-	-	3	3
BEE 702	PC	Switchgear and Relaying	3	-	-	3	3
BEE 703	PC	EHV AC/DC Transmission	3	-	-	3	3
	PE	Elective -III	3	-	-	3	3
	PE	Elective -IV	3	-	-	3	3
BEE704	PC	Power System Modeling & Simulation Lab	-	-	2	2	1
BEE 705	PC	High Voltage Engineering Lab	-	-	2	2	1
BEE 706	PR	Project Stage -I	-	-	2	2	1
BME 715	OE	Basic Industrial Robotics	-	-	2	2	1
BEE 707	ST	Seminar	-	-	2	2	1
BEE 708	PC	Campus Recruitment Training–II (Technical)	-	-	2	2	1
		Total	18	-	12	30	24

Elective III

- BEE 709 - Renewable Energy Sources
- BEE 710 - Computer Aided Design of Electrical Machines
- BCS 717 -Artificial Neural Networks
- BEE 711- Flexible AC Transmission
- BEE 712 -Power System Planning
- BCS 718- Neuro-Fuzzy System

Elective IV

- BEE 713 - Power system Engineering
- BEE 714 - Advance Power System
- BCS 301 - Data Structure & Algorithm
- BEE 715 - Industrial Automation and PLCs
- BEE 716 - Electrical Machine Design
- BEE 717- Design Estimation & Costing

EIGHTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
EE 801	ST	Practical Training in Industry (one semester)	-	-	-	-	16

S. No.	Category of Courses	Category Codes	Number of Courses	Credit
1	Professional Core Credits	PC	33	72.5
2	Professional Elective Core Credit	PE	4	12
3	Project Credit	PR	1	1
4	Seminar & training Credit	ST	2	17
5	Open Elective Credit	OE	12	24
6	Basic Science Credit	BS	12	26.5
7	Engineering Science Credit	ES	10	19
8	HU/SS/MAN	HSM	11	16
	Total		85	188

Category Codes	Number of Courses	Credit
Theory	42	130
Practice	43	58

Department of Electrical Engineering, Faculty of Engineering & Technology

Program Name: B. Tech.-Electrical Engineering (2017-18)

SCHEME OF TEACHING AND EVALUATION

FIRST SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 105	Ability Enhancement	English	2	1	-	2.5
MAT 102	Science	Engineering Mathematics-I	3	1	-	3.5
PHY 105	Science	Physics for Engineers —I	3	-	-	3.5
CHY 105	Science	Chemistry for Engineers	2	-	-	2
BEE 101	Engineering	Basic Electrical & Electronics	3	1	-	3.5
BCS 101	Engineering	Fundamentals of Computer	3	-	-	3
PHY 106	Science	Physics for Engineers Lab —I	-	-	2	1
CHY 106	Science	Chemistry Lab	-	-	2	1
BEE 102	Engineering	Basic Electrical & Electronics Lab	-	-	2	1
BCS 102	Engineering	Fundamentals of Computer Lab	-	-	2	1
BME 101	Engineering	Workshop Practice	-	-	2	1
BME 102	Engineering	Engineering Graphics	-	-	2	1
ENG 113	Skill Enhancement	Soft Skills & Self Awareness	-	-	2	1
		TOTAL	16	4	14	25

SECOND SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 106	Ability Enhancement	Professional Communication	2	1	-	2.5
MAT 103	Science	Engineering Mathematics-II	3	1	-	3.5
PHY 107	Science	Physics for Engineers —II	3	1	-	3.5
CHY 103	Science	Environmental Science	2		-	2
BME 201	Engineering	Engineering Mechanics	3	1	-	3.5
BCS 201	Engineering	Computer Programming Using C	3	-	-	3
ENG 107	Ability Enhancement	Communication Techniques Lab	-	-	2	1
PHY 108	Science	Physics For Engineers Lab-II	-	-	2	1
CHY 107	Science	Environmental Science Lab	-	-	2	1
BCS 202	Engineering	Computer Programming Using C Lab	-	-	2	1
BME 202	Engineering	Computer-Aided Graphics	-	-	2	1
ENG 114	Skill	Soft Skills & Communication	-	-	2	1
		TOTAL	16	4	12	24

THIRD SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
MAT 105	BS	Advance Engineering Mathematics	3	1	-	4	3.5
BEC 301	OE	Electronic Devices and Circuits	3	-	-	3	3
BEC 303	OE	Digital Electronics	3	-	-	3	3
BEE 301	PC	Circuit Analysis	3	1	-	4	3.5
BCS 302	OC	Object Oriented Programming with C++	3	-	-	3	3
BEE 302	PC	Electrical Machines -I	3	-	-	3	3
BEC 306	OE	Electronics Devices and Circuits Lab	-	-	2	2	1
BEC 307	OE	Digital Electronics Lab	-	-	2	2	1
BCS 305	OE	Object Oriented Programming Lab	-	-	2	2	1
BEE 303	PC	Electrical Machines Lab- I	-	-	2	2	1
ENG 115	BS	Soft Skill & Professional Aptitude	-	-	2	2	1
MGT 201	HSM	Orientation Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

FOURTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 401	PC	Circuit Analysis & Synthesis	3	1	-	4	3.5
BEE 402	PC	Electrical and Electronics Measurement and Instrumentation	3	-	-	3	3
BEC 402	OE	Microprocessor and Interfacing	3	-	-	3	3
MGT 101	OE	Sociology and Elements of Economics	3	-	-	3	3
BEE 403	PC	Generation of Electrical power	3	-	-	3	3
BEE 404	PC	Electrical Machines -II	3	1	-	4	3.5
BEE 405	PC	Circuit Analysis & Synthesis Lab	-	-	2	2	1
BEE 406	PC	Electrical and Electronics Measurement and Instrumentation Lab	-	-	2	2	1
BEC 407	OE	Microprocessor and Interfacing Lab	-	-	2	2	1
BEE 407	PC	Electrical Machines Lab- II	-	-	2	2	1
MGT 110	HSM	General Aptitude	-	-	2	2	1
MGT 202	HSM	Basic Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

FIFTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BCS 401	OE	Data Base Management Systems	3	-	-	3	3
BEE 501	PC	Power Electronics	3	1	-	4	3.5
BEE 502	PC	Control System Engineering	3		-	3	3
BEE 503	PC	Transmission & Distribution of Electrical Power	3	1	-	4	3.5
BEE 504	PC	Smart Grid Technology	3	-	-	3	3
	PE	Program Elective Course-I	3	-	-	3	3
BEE 505	PC	Smart Grid Lab	-	-	2	2	1
BEE 506	PC	Power Electronics Lab	-	-	2	2	1
BCS 404	OE	Data Base Management Systems Lab	-	-	2	2	1
BEE 507	PC	Control Systems Lab	-	-	2	2	1
MGT 203	HSM	Foundation Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	10	30	24

Elective I

BEC 502- Microcontroller & Embedded System

BEE 508- Advance Distribution System

BEC 603- Digital Signal Processing

SIXTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 601	PC	Power System Analysis	3	1	-	4	3.5
BEE 602	PC	Advance Control Theory	3		-	3	3
BEE 603	PC	Advance Power Electronics	3	1	-	4	3.5
BEE 604	PC	Electric Drive & their Control	3		-	3	3
BEE 605	PC	Utilization of Electrical Energy & Electric Traction	3	-	-	3	3
	PE	Program Elective Course-II	3	-	-	3	3
BEE 606	PC	Power System Analysis Lab	-	-	2	2	1
BEE 607	PC	Advance Power Electronics Lab	-	-	2	2	1
BEE 608	PC	Electric Drive & their Control Lab	-	-	2	2	1
BEE 609	PC	Advance Simulation Laboratory	-	-	2	2	1
BEE 610	PC	Campus Recruitment Training -I (Technical)	-	-	2	2	1
MGT 204	HSM	Intermediate Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

Elective II

BEC 504 -Advance Microprocessors

BEE 611- Power System Instrumentation

BEC 608 - Information Theory and Coding

SEVENTH SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
MGT 103	HSM	Project Formulation & Appraisal Techniques	3	-	-	3	3
BEE 701	PC	High Voltage Engineering	3	-	-	3	3
BEE 702	PC	Switchgear and Relaying	3	-	-	3	3
BEE 703	PC	EHV AC/DC Transmission	3	-	-	3	3
	PE	Elective -III	3	-	-	3	3
	PE	Elective -IV	3	-	-	3	3
BEE704	PC	Power System Modeling & Simulation Lab	-	-	2	2	1
BEE 705	PC	High Voltage Engineering Lab	-	-	2	2	1
BEE 706	PR	Project Stage -I	-	-	2	2	1
BME 715	OE	Basic Industrial Robotics	-	-	2	2	1
BEE 707	ST	Seminar	-	-	2	2	1
BEE 708	PC	Campus Recruitment Training–II (Technical)	-	-	2	2	1
		Total	18	-	12	30	24

Elective III

- BEE 709 - Renewable Energy Sources
- BEE 710 - Computer Aided Design of Electrical Machines
- BCS 717 -Artificial Neural Networks
- BEE 711- Flexible AC Transmission
- BEE 712 -Power System Planning
- BCS 718- Neuro-Fuzzy System

Elective IV

- BEE 713 - Power system Engineering
- BEE 714 - Advance Power System
- BCS 301 - Data Structure & Algorithm
- BEE 715 - Industrial Automation and PLCs
- BEE 716 - Electrical Machine Design
- BEE 717- Design Estimation & Costing

EIGHTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
EE 801	ST	Practical Training in Industry (one semester)	-	-	-	-	16

S. No.	Category of Courses	Category Codes	Number of Courses	Credit
1	Professional Core Credits	PC	33	72.5
2	Professional Elective Core Credit	PE	4	12
3	Project Credit	PR	1	1
4	Seminar & training Credit	ST	2	17
5	Open Elective Credit	OE	12	24
6	Basic Science Credit	BS	12	26.5
7	Engineering Science Credit	ES	10	19
8	HU/SS/MAN	HSM	11	16
	Total		85	188

Category Codes	Number of Courses	Credit
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Department of Electrical Engineering, Faculty of Engineering & Technology**Program Name: B. Tech.-Electrical Engineering (2018-19)****SCHEME OF TEACHING AND EVALUATION****FIRST SEMESTER**

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MAT 102	Science	Engineering Mathematics-I	3	1	-	3.5
PHY 105	Science	Physics for Engineers —I	3	-	-	3.5
CHY 105	Science	Chemistry for Engineers	2	-	-	2
BEE 101	Engineering	Basic Electrical & Electronics	3	1	-	4
BCS 101	Engineering	Fundamentals of Computer	3	-	-	2
PHY 106	Science	Physics for Engineers Lab —I	-	-	2	1
CHY 106	Science	Chemistry Lab	-	-	2	1
BEE 102	Engineering	Basic Electrical & Electronics Lab	-	-	2	1
BCS 102	Engineering	Fundamentals of Computer Lab	-	-	2	1
BME 101	Engineering	Workshop Practice	-	-	2	1
BME 102	Engineering	Engineering Graphics	-	-	2	1
ENG 113	Skill Enhancement	Soft Skills & Self Awareness	-	-	2	1
		TOTAL	16	4	14	25

SECOND SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 106	Ability Enhancement	Professional Communication	2	1	-	3
MAT 103	Science	Engineering Mathematics-II	3	1	-	3.5
PHY 107	Science	Physics for Engineers —II	3	1	-	3.5
CHY 103	Science	Environmental Science	2		-	2
BME 201	Engineering	Engineering Mechanics	3	1	-	3.5
BCS 201	Engineering	Computer Programming Using C	3	-	-	2
ENG 107	Ability Enhancement	Communication Techniques Lab	-	-	2	1
PHY 108	Science	Physics for Engineers Lab-II	-	-	2	1
CHY 107	Science	Environmental Science Lab	-	-	2	1
BCS 202	Engineering	Computer Programming Using C Lab	-	-	2	1
BME 202	Engineering	Computer-Aided Graphics	-	-	2	1
ENG 114	Skill Enhancement	Soft Skills & Communication	-	-	2	1
SEP 200	Skill Enhancement	Extra-Curricular Activity (NSS/NCC/Scouting/Club Activity)	-	-	2	1
		TOTAL	16	4	12	24

THIRD SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
MAT 105	BS	Advance Engineering Mathematics	3	1	-	4	3.5
BEC 301	OE	Electronic Devices and Circuits	3	-	-	3	3
BEC 303	OE	Digital Electronics	3	-	-	3	3
BEE 301	PC	Circuit Analysis	3	1	-	4	3.5
BCS 302	OC	Object Oriented Programming with C++	3		-	3	3
BEE 302	PC	Electrical Machines -I	3	-	-	3	3
BEC 306	OE	Electronics Devices and Circuits Lab	-	-	2	2	1
BEC 307	OE	Digital Electronics Lab	-	-	2	2	1
BCS 305	OE	Object Oriented Programming Lab	-	-	2	2	1
BEE 303	PC	Electrical Machines Lab- I	-	-	2	2	1
ENG 115	BS	Soft Skill & Professional Aptitude	-	-	2	2	1
MGT 201	HSM	Orientation Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

FOURTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 401	PC	Circuit Analysis & Synthesis	3	1	-	4	3.5
BEE 402	PC	Electrical and Electronics Measurement and Instrumentation	3	-	-	3	3
BEC 402	OE	Microprocessor and Interfacing	3	-	-	3	3
MGT 101	OE	Sociology and Elements of Economics	3	-	-	3	3
BEE 403	PC	Generation of Electrical power	3	-	-	3	3
BEE 404	PC	Electrical Machines -II	3	1	-	4	3.5
BEE 405	PC	Circuit Analysis & Synthesis Lab	-	-	2	2	1
BEE 406	PC	Electrical and Electronics Measurement and Instrumentation Lab	-	-	2	2	1
BEC 407	OE	Microprocessor and Interfacing Lab	-	-	2	2	1
BEE 407	PC	Electrical Machines Lab- II	-	-	2	2	1
MGT 110	HSM	General Aptitude	-	-	2	2	1
MGT 202	HSM	Basic Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	12	32	25

FIFTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BCS 401	OE	Data Base Management Systems	3	-	-	3	3
BEE 501	PC	Power Electronics	3	1	-	4	3.5
BEE 502	PC	Control System Engineering	3		-	3	3
BEE 503	PC	Transmission & Distribution of Electrical Power	3	1	-	4	3.5
BEE 504	PC	Smart Grid Technology	3	-	-	3	3
	PE	Program Elective Course-I	3	-	-	3	3
BEE 505	PC	Smart Grid Lab	-	-	2	2	1
BEE 506	PC	Power Electronics Lab	-	-	2	2	1
BCS 404	OE	Data Base Management Systems Lab	-	-	2	2	1
BEE 507	PC	Control Systems Lab	-	-	2	2	1
MGT 203	HSM	Foundation Program in Entrepreneurship	-	-	2	2	1
		Total	18	2	10	30	24

Elective I

BEC 502- Microcontroller & Embedded System
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SIXTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 601	PC	Power System Analysis	3	1	-	4	3.5
BEE 602	PC	Advance Control Theory	3		-	3	3
BEE 603	PC	Advance Power Electronics	3	1	-	4	3.5
BEE 604	PC	Electric Drive & their Control	3		-	3	3
BEE 605	PC	Utilization of Electrical Energy & Electric Traction	3	-	-	3	3
	PE	Program Elective Course-II	3	-	-	3	3
BEE 606	PC	Power System Analysis Lab	-	-	2	2	1
BEE 607	PC	Advance Power Electronics Lab	-	-	2	2	1
BEE 608	PC	Electric Drive & their Control Lab	-	-	2	2	1
BEE 609	PC	Advance Simulation Laboratory	-	-	2	2	1
BEE 610	PC	Campus Recruitment Training -I (Technical)	-	-	2	2	1
MGT 204	HSM	Intermediate Program in Entrepreneurship	-	-	2	2	1
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Elective II

BEC 504 -Advance Microprocessors
 BEE 611- Power System Instrumentation
 BEC 608 - Information Theory and Coding

SEVENTH SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
MGT 103	HSM	Project Formulation & Appraisal Techniques	3	-	-	3	3
BEE 701	PC	High Voltage Engineering	3	-	-	3	3
BEE 702	PC	Switchgear and Relaying	3	-	-	3	3
BEE 703	PC	EHV AC/DC Transmission	3	-	-	3	3
	PE	Elective -III	3	-	-	3	3
	PE	Elective -IV	3	-	-	3	3
BEE704	PC	Power System Modeling & Simulation Lab	-	-	2	2	1
BEE 705	PC	High Voltage Engineering Lab	-	-	2	2	1
BEE 706	PR	Project Stage -I	-	-	2	2	1
BME 715	OE	Basic Industrial Robotics	-	-	2	2	1
BEE 707	ST	Seminar	-	-	2	2	1
BEE 708	PC	Campus Recruitment Training–II (Technical)	-	-	2	2	1
		Total	18	-	12	30	24

Elective III

- BEE 709 - Renewable Energy Sources
- BEE 710 - Computer Aided Design of Electrical Machines
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Elective IV

- BEE 713 - Power system Engineering
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- BCS 301 - Data Structure & Algorithm
- BEE 715 - Industrial Automation and PLCs
- BEE 716 - Electrical Machine Design
- BEE 717- Design Estimation & Costing

EIGHTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
EE 801	ST	Practical Training in Industry (one semester)	-	-	-	-	16

S. No.	Category of Courses	Category Codes	Number of Courses	Credit
1	Professional Core Credits	PC	33	72.5
2	Professional Elective Core Credit	PE	4	12
3	Project Credit	PR	1	1
4	Seminar & training Credit	ST	2	17
5	Open Elective Credit	OE	12	24
6	Basic Science Credit	BS	12	26.5
7	Engineering Science Credit	ES	10	17.5
8	HU/SS/MAN	HSM	12	17.5
	Total		86	188

Category Codes	Number of Courses	Credit
Theory	42	129
Practice	44	59

Department of Electrical Engineering, Faculty of Engineering & Technology

Program Name: B. Tech.-Electrical Engineering (2019-20)

SCHEME OF TEACHING AND EVALUATION

FIRST SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 105	Ability Enhancement	English	2	1	-	3
MAT 102	Science	Engineering Mathematics-I	3	1	-	4
PHY 105	Science	Physics for Engineers —I	3	1	-	4
CHY 105	Science	Chemistry for Engineers	2	-	-	2
BEE 101	Engineering	Basic Electrical & Electronics	3	1	-	4
BCS 101	Engineering	Fundamentals of Computer	2	-	-	2
PHY 106	Science	Physics for Engineers Lab —I	-	-	2	1
CHY 106	Science	Chemistry Lab	-	-	2	1
BEE 102	Engineering	Basic Electrical & Electronics Lab	-	-	2	1
BCS 102	Engineering	Fundamentals of Computer Lab	-	-	2	1
BME 101	Engineering	Workshop Practice	-	-	2	1
BME 102	Engineering	Engineering Graphics	-	-	2	1
ENG 113	Skill Enhancement	Soft Skills & Self Awareness	-	-	2	1
		TOTAL	15	4	14	26

SECOND SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 106	Ability Enhancement	Professional English	2	1	-	3
MAT 103	Science	Engineering Mathematics-II	3	1	-	4
PHY 107	Science	Physics for Engineers —II	3	1	-	4
CHY 103	Science	Environmental Science	2	-	-	2
BME 201	Engineering	Engineering Mechanics	3	1	-	4
BCS 201	Engineering	Computer Programming Using C	2	-	-	2
ENG 107	Ability Enhancement	Communication Techniques Lab	-	-	2	1
PHY 108	Science	Physics for Engineers Lab-II	-	-	2	1
CHY 107	Science	Environmental Science Lab	-	-	2	1
BCS 202	Engineering	Computer Programming Using C Lab	-	-	2	1
BME 202	Engineering	Computer Aided Graphics	-	-	2	1
ENG 114	Skill Enhancement	Soft skills and Communication	-	-	2	1
SEP 200	Skill Enhancement	Extra-Curricular Activity (NSS/NCC/Scouting/Club activity)	-	-	2	1
		TOTAL	15	4	14	26

THIRD SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
MAT 105	BS	Advance Engineering Mathematics	3	1	-	4	4
BEC 301	OE	Electronics Devices and Circuits	3	-	-	3	3
BEC 303	OE	Digital Electronics	3	-	-	3	3
BEE 301	PC	Circuit Analysis	3	-	-	3	3
BCS 302	OC	Object Oriented Programming with C++	3	1	-	4	4
BEE 302	PC	Electrical Machines -I	3	-	-	3	3
BEC 306	OE	Electronics Devices and Circuits Lab	-	-	2	2	1
BEC 307	OE	Digital Electronics Lab	-	-	2	2	1
BCS 305	OE	Object Oriented Programming with C++Lab	-	-	2	2	1
BEE 303	PC	Electrical Machines Lab- I	-	-	2	2	1
ENG115	BS	Soft Skill & Professional Aptitude	-	-	2	2	1
		Total	18	2	10	30	25

FOURTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 401	PC	Circuit Analysis & Synthesis	3	1	-	4	4
BEE 402	PC	Electrical and Electronics Measurement and Instrumentation	3	-	-	3	3
BEC 402	OE	Microprocessor and Interfacing	3	-	-	3	3
MGT 101	OE	Sociology and Elements of Economics	3	-	-	3	3
BEE 403	PC	Generation of Electrical power	3	-	-	3	3
BEE 404	PC	Electrical Machines -II	3	-	-	3	3
BEE 405	PC	Circuit Analysis & Synthesis Lab	-	-	2	2	1
BEE 406	PC	Electrical and Electronics Measurement and Instrumentation Lab	-	-	2	2	1
BEC 407	OE	Microprocessor and Interfacing Lab	-	-	2	2	1
BEE 407	PC	Electrical Machines Lab-II	-	-	2	2	1
MGT 110	HSM	General Aptitude	-	-	2	2	1
		Total	18	1	10	29	24

FIFTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
BCS 401	OE	Data Base Management Systems	3	-	-	3	3
BEE 501	PC	Power Electronics	3	1	-	4	4
BEE 502	PC	Control System Engineering	3		-	3	3
BEE 503	PC	Transmission & Distribution of Electrical Power	3	-	-	3	3
BEE 504	PC	Smart Grid Technology	3	-	-	3	3
	PE	Program Elective Course-I	3	-	-	3	3
BEE 505	PC	Smart Grid Lab	-	-	2	2	1
BEE 506	PC	Power Electronics Lab	-	-	2	2	1
BCS 404	OE	Data Base Management Systems Lab	-	-	2	2	1
BEE 507	PC	Control Systems Lab	-	-	2	2	1
		Total	18	1	8	27	23

Elective I

BEC 502- Microcontroller & Embedded System

BEE 508- Advance Distribution System

BEC 603- Digital Signal Processing

SIXTH SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 601	PC	Power System Analysis	3	1	-	4	4
BEE 602	PC	Advance Control Theory	3		-	3	3
BEE 603	PC	Advance Power Electronics	3	-	-	3	3
BEE 604	PC	Electric Drive & their Control	3		-	3	3
BEE 605	PC	Utilization of Electrical Energy & Electric Traction	3	-	-	3	3
	PE	Program Elective Course-II	3	-	-	3	3
BEE 606	PC	Power System Analysis Lab	-	-	2	2	1
BEE 607	PC	Advance Power Electronics Lab	-	-	2	2	1
BEE 608	PC	Electric Drive & their Control Lab	-	-	2	2	1
BEE 609	PC	Advance Simulation Laboratory	-	-	2	2	1
BEE 610	PC	Campus Recruitment Training -I (Technical)	-	-	2	2	1
		Total	18	1	10	29	24

Elective II

BEC 504 -Advance Microprocessors

BEE 611- Power System Instrumentation

BEC 608 - Information Theory and Coding

SEVENTH SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
MGT 103	HSM	Project Formulation & Appraisal Techniques	3	-	-	3	3
BEE 701	PC	High Voltage Engineering	3	-	-	3	3
BEE 702	PC	Switchgear and Relaying	3	-	-	3	3
BEE 703	PC	EHV AC/DC Transmission	3	-	-	3	3
	PE	Elective -III	3	-	-	3	3
	PE	Elective -IV	3	-	-	3	3
BEE704	PC	Power System Modeling & Simulation Lab	-	-	2	2	1
BEE 705	PC	High Voltage Engineering Lab	-	-	2	2	1
BEE 706	PR	Project Stage -I	-	-	2	2	1
BME 715	OE	Basic Industrial Robotics	-	-	2	2	1
BEE 707	ST	Seminar	-	-	2	2	1
BEE 708	PC	Campus Recruitment Training-II (Technical)	-	-	2	2	1
		Total	18	-	12	30	24

Elective III

- BEE 709 - Renewable Energy Sources
- BEE 710 - Computer Aided Design of Electrical Machines
- BCS 717 -Artificial Neural Networks
- BEE 711- Flexible AC Transmission
- BEE 712 -Power System Planning
- BCS 718- Neuro-Fuzzy System

Elective IV

- BEE 713 - Power system Engineering
- BEE 714 - Advance Power System
- BCS 301 - Data Structure & Algorithm
- BEE 715 - Industrial Automation and PLCs
- BEE 716 - Electrical Machine Design
- BEE 717- Design Estimation & Costing

EIGHTH SEMESTER

Course code	Course type	Course Name	L*	T*	P*	Total Hour	Credit
EE 801	ST	Practical Training in Industry (one semester)	-	-	-	-	16

S. No.	Category of Courses	Category Codes	Number of Courses	Credit
1	Professional Core Credits	PC	33	72
2	Professional Elective Core Credit	PE	4	12
3	Project Credit	PR	1	1
4	Seminar & training Credit	ST	2	17
5	Open Elective Credit	OE	12	25
6	Basic Science Credit	BS	12	29
7	Engineering Science Credit	ES	10	18
8	HU/SS/MAN	HSM	8	14
	Total		82	188

Category Codes	Number of Courses	Credit
Theory	42	133
Practice	40	55

Department of Electrical Engineering, Faculty of Engineering & Technology

Program Name: B. Tech.-Electrical Engineering (2020 – 21)

SCHEME OF TEACHING AND EVALUATION

FIRST SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 105	HSMC	English	3	-	-	3
MAT 102	BSC	Engineering Mathematics-I	3	1	-	4
CHY 105	BSC	Chemistry For Engineers	3	-	-	3
BEE 101	ESC	Basic Electrical & Electronics	3	1	-	4
BCS 101	ESC	Fundamentals of Computer	3	-	-	3
CHY 106	BSC	Chemistry Lab	-	-	2	1
BEE 102	ESC	Basic Electrical & Electronics Lab	-	-	2	1
BCS 102	ESC	Fundamentals of Computer Lab	-	-	2	1
BME 101	ESC	Workshop Practice	-	-	2	1
BME 102	ESC	Engineering Graphics	-	-	2	1
TOTAL			15	2	10	22

SECOND SEMESTER

Course Code	Course Category	Course Title	Teaching Scheme			
			L	T	P	C
ENG 106	HSMC	Professional English	2	-	-	2
MAT 103	BSC	Engineering Mathematics-II	3	1	-	4
PHY 301	BSC	Physics For Engineers	3	1	-	4
CHY 103	MC	Environmental Science	2	-	-	2
BME 201	ESC	Engineering Mechanics	3	1	-	4
BCS 201	ESC	Computer Programming Using C	2	-	-	2
ENG 107	HSMC	Communication Techniques Lab	-	-	2	1
PHY 302	BSC	Physics For Engineers Lab	-	-	2	1
BCS 202	ESC	Computer Programming Using C Lab	-	-	2	1
BME 202	ESC	Computer Aided Graphics	-	-	2	1
SEP 200		NCC/NSS/Club Activity/ Anandam	-	-	4	2
TOTAL			15	3	12	24

THIRD SEMESTER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
MAT 105	BSC	Advance Engineering Mathematics	3	1	-	4	4
BEC 301	PCC	Electronics Devices and Circuits	3	-	-	3	3
BEC 303	PCC	Digital Electronics	3	-	-	3	3
BEE 301	PCC	Circuit Analysis	3	-	-	3	3
BEE 302	PCC	Electrical Machines -I	3	-	-	3	3
BCS 302	PCC	Object Oriented Programming with C++	3	-	-	3	3
BEC 306	PCC	Electronics Devices and Circuits Lab	-	-	2	2	1
BEC 307	PCC	Digital Electronics Lab	-	-	2	2	1
BEE 303	PCC	Electrical Machines Lab- I	-	-	2	2	1
BCS 305	PCC	Object oriented programing in C++ Lab.	-	-	2	2	1
		Total	18	01	8	27	23

NOTE: Subject title “BCS 302 Object oriented Programing with C++” is to be consider as MOOC course in B Tech 3rd Semester and students will have to earn certificate through the SWAYAM Courses. Credit/grades Received from SWAYAM portal will be transferred as per UGC Guidelines in their respective semester.

IV SEMESER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 402	PCC	Electrical and Electronics Measurement and Instrumentation	3		-	3	3
BEC 402	PCC	Microprocessor and Interfacing	3	-	-	3	3
BEE 404	PCC	Electrical Machines -II	3	-	-	3	3
	PEC	Program Elective Course-I	3	-	-	3	3
	OEC	Open Elective Course-I	3	-	-	3	3
MGT 101	HSMC	Sociology and Elements of Economics	3	-	-	3	3
BEE 406	PCC	Electrical and Electronics Measurement and Instrumentation Lab	-	-	2	2	1
BEC 407	PCC	Microprocessor and Interfacing Lab	-	-	2	2	1
BEE 407	PCC	Electrical Machines Lab- II	-	-	2	2	1
		Total	18	00	06	24	21

V SEMESER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 501	PCC	Power Electronics	3	-	-	3	3
BEE 502	PCC	Control System Engineering	3		-	3	3
BEE 503	PCC	Transmission & Distribution of Electrical Power	3	-	-	3	3
BEE 504	PCC	Smart Grid Technology	3	-	-	3	3
	PEC	Program Elective Course-II	3	-	-	3	3
	OEC	Open Elective Course-II	3	-	-	3	3
BEE 505	PCC	Smart Grid Lab	-	-	2	2	1
BEE 506	PCC	Power Electronics Lab	-	-	2	2	1
BEE 507	PCC	Control Systems Lab	-	-	2	2	1
BEE 509	PSIT	Industrial Training -I			2	2	1
AUD 105	MC	Constitution of India	-	-	2	2	Non-Credit Course
		Total	18	00	10	28	22

NOTE: Subject title “**BEE 502 Control System Engineering**” is to be consider as MOOC course in B Tech 5th Semester and students will have to earn certificate through the SWAYAM Courses. Credit/Grades Received from SWAYAM portal will be transferred as per UGC Guidelines in their respective semester

VI SEMESER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 601	PCC	Power System Analysis	3	-	-	3	3
BEE 604	PCC	Electric Drive & their Control	3		-	3	3
MGT 130	HSMC	Introduction of Industrial Management	3	-	-	3	3
	PEC	Program Elective Course-III	3	-	-	3	3
	PEC	Program Elective Course-IV	3	-	-	3	3
	OEC	Open Elective Course-III	3	-	-	3	3
BEE 606	PCC	Power System Analysis Lab	-	-	2	2	1
BEE 608	PCC	Electric Drive & their Control Lab	-	-	2	2	1
BEE 609	PCC	Advance Simulation Laboratory	-	-	2	2	1
BEE 612	PSIT	Industrial Training -II			2	2	1
		Total	18	0	08	26	22

VII SEMESER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 701	PCC	High Voltage Engineering	3	-	-	3	3
BEE 719	PCC	Electrical and Hybrid Vehicles	3	-	-	3	3
	PEC	Program Elective Course-V	3	-	-	3	3
	PEC	Program Elective Course-VI	3	-	-	3	3
	OEC	Open Elective Course-IV	3	-	-	3	3
BEE704	PCC	Power System Modeling & Simulation Lab	-	-	2	2	1
BEE 705	PCC	High Voltage Engineering Lab	-	-	2	2	1
BEE 706	PSIT	Project Stage -I	-	-	2	2	1
BEE 707	PSIT	Seminar	-	-	2	2	1
		Total	15	00	8	23	19

NOTE: Subject title “BEE 701 High Voltage Engineering” is to be consider as MOOC course in B Tech 7th Semester and students will have to earn certificate through the SWAYAM Courses. Credit/Grades Received from SWAYAM portal will be transferred as per UGC Guidelines in their respective semester.

VIII SEMESER

Course Code	Course Type	Course Name	L*	T*	P*	Total Hour	Credit
BEE 801	PSIT	Practical Training in Industry (one semester)	-		-	-	12

Program Elective Course-I	Open Elective Course-I
BEE 401 Circuit Analysis & Synthesis	BEC 401 Electromagnetic Field and Theory
BEE 403 Generation of Electrical power	BEC 405 Analog Communication
	BEC 406 Signals & Systems
Program Elective Course-II	
BEE 508- Advance Distribution System	Open Elective Course-II
BEE 510 Electrical Energy Conservation and Auditing	BCS 401 Data Base Management Systems
	BEC 502- Microcontroller & Embedded System
Program Elective Course-III	BEC 603- Digital Signal Processing
BEE 602 Advance Control Theory	BEC 501 Linear Integrated Circuit
BEE 603 Advance Power Electronics	
	Open Elective Course-III
Program Elective Course-IV	BEC 504 -Advance Microprocessors
BEE 605 Utilization of Electrical Energy & Electric Traction	BEC 608 - Information Theory and Coding
BEE 611 - Power System Instrumentation	BEC 602 Digital Communication
Program Elective Course-V	
BEE 709 - Renewable Energy Sources	Open Elective Course-III
BEE 710 - Computer Aided Design of Electrical Machines	BCS 717 -Artificial Neural Networks
BEE 711- Flexible AC Transmission	BEC 606- Neuro-Fuzzy System
BEE 715 Industrial Automation and PLCs	BCS 301 - Data Structure & Algorithm
Program Elective Course-VI	
BEE 712 -Power System Planning	
BEE 713 Power system Engineering	
BEE 714 Advanced Power system	

S. No.	Category of Courses	Category Codes	Number of Courses	Credit
1	Professional Core Credits	PC	29	57
2	Professional Elective Core Credit	PE	6	18
3	Open Elective Credit	OE	3	9
4	Basic Science Credit	BS	7	21
5	Engineering Science Credit	ES	10	19
6	HU/SS/MAN	HSM	6	14
7	Mandatory Courses	MC	2	2
8	Project work, seminar and internship in industry or elsewhere and Training	PSIT	5	16
9	MOOC Courses	MOOC	3	9
	Total		71	165

Category Codes	Number of Courses	Credit
Theory	40	123
Practice	31	42